

CONAPOXY[®] AD-10

TECHNICAL PRODUCT BRIEF



DESCRIPTION

CONAPOXY AD-10 is a unique single-component epoxy that may be used as a structural adhesive or miniature electronic potting compound. The heat-cure formulation was designed for rapid cure at temperatures as low as 93°C (200°F), yet it exhibits good storage life at room temperature. Good dielectric properties and thermal stability make this epoxy ideal for electrical applications up to 150°C (302°F).

This single-component epoxy may be used to bond to most metals, ceramics, and plastics and it is chemically resistant to many acids and bases. Specific applications include bonding and/or sealing magnet and speaker assemblies, batteries, filters, end cap filling, structural materials, miniature potting and staking.

CONAPOXY AD-10 is typically used as an adhesive and should not be used in excess of 1/8" thickness. This epoxy eliminates the possibility of human error when mixing two-component systems. By using CONAPOXY AD-10 the manufacturer will save time, ensure quality, and reduce scrap.

CHARACTERISTICS AND PROPERTIES

Table 1 | Product Description

Property	Value
Viscosity @ 25°C (77°F)	Thixotropic Non-Flow
Specific Gravity @ 25°C (77°F)	1.27
Color	Brown
Solids Content, %	100
Shelf Life @ 25°C,	4 months
Shelf Life @ 5°C	8 months

CURING INFORMATION

Table 2 | Cured Properties

Property	Value
Hardness, Shore D	85
Lap Shear AL/AL, psi	3000
Operating Temperature	-55°C to 150°C

* Not recommended to be cured in excess of 1/8" thickness.

Cure times were determined using etched aluminum lap shear specimens. Minimum cure is the time required to obtain two-thirds of the maximum tensile shear while maximum cure is the time required to reach full tensile shear.

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Table 3 | Processing Parameters

Cure Temperature	Minimum	Maximum
200°F (93°C)	120 minutes	150 minutes
225°F (107°C)	65 minutes	80 minutes
250°F (121°C)	30 minutes	40 minutes
275°F (135°C)	12 minutes	20 minutes
300°F (149°C)	8 minutes	12 minutes
324°F (163°C)	5 minutes	8 minutes
400°F (204°C)	2 minutes	4 minutes

The wide range of cure temperatures allows the user a diversity of cure times to match production requirements.

The surface to be bonded or potted should be free of all grease, dirt, and foreign matter. For information on optimum surface preparation see our **Surface Preparation Guide** AC-107. For bonding, apply CONAPOXY AD-10 by suitable means adjusting the glue line from 1 to 10 mils. Contact pressure is suitable for most bonding applications.

Table 4 | Electrical Properties

Property	Value @ 25°C (77°F)
Dielectric Constant @ 1 KHz	4.0
Dissipation Factor @ 1 KHz	0.006
Dielectric Strength, vpm	>375

HANDLING AND STORAGE INSTRUCTIONS

Avoid excessive skin contact. If contact occurs wash skin with soap and water. Provide adequate ventilation. Please refer to the Material Safety Data Sheet.

Store in a cool, dry area. Storage conditions should not exceed 26°C (80°F). Under these conditions storage life is expected to be at least four months. The shelf life may be extended up to eight months by storing at 5°C (41°F).

AVAILABILITY

CONAPOXY AD-10 is available in 1-gallon and 5-gallon containers.

CAUTION: Responsible handling of Cytec Industries Inc. products requires a thorough review of safety, health, and environmental issues prior to use. Review the Material Safety Data Sheets(s) for the specific Cytec Industries Inc. product(s) and container label information before opening containers. Ensure that employee exposure issues are understood, communicated to all workers, and controls are in place to prevent exposures above Permissible Exposure Limits (PELs). Review safety and environmental issues to be certain controls are in place to prevent injury to employees, the community, or the environment, and ensure compliance with all applicable Federal, State, and Local laws and regulations. For assistance in this review process, please call your Cytec Industries Inc. representative or our office noted below.

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CONTACT INFORMATION

Olean, New York
tel 716.372.9650
fax 716.372.1594

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